

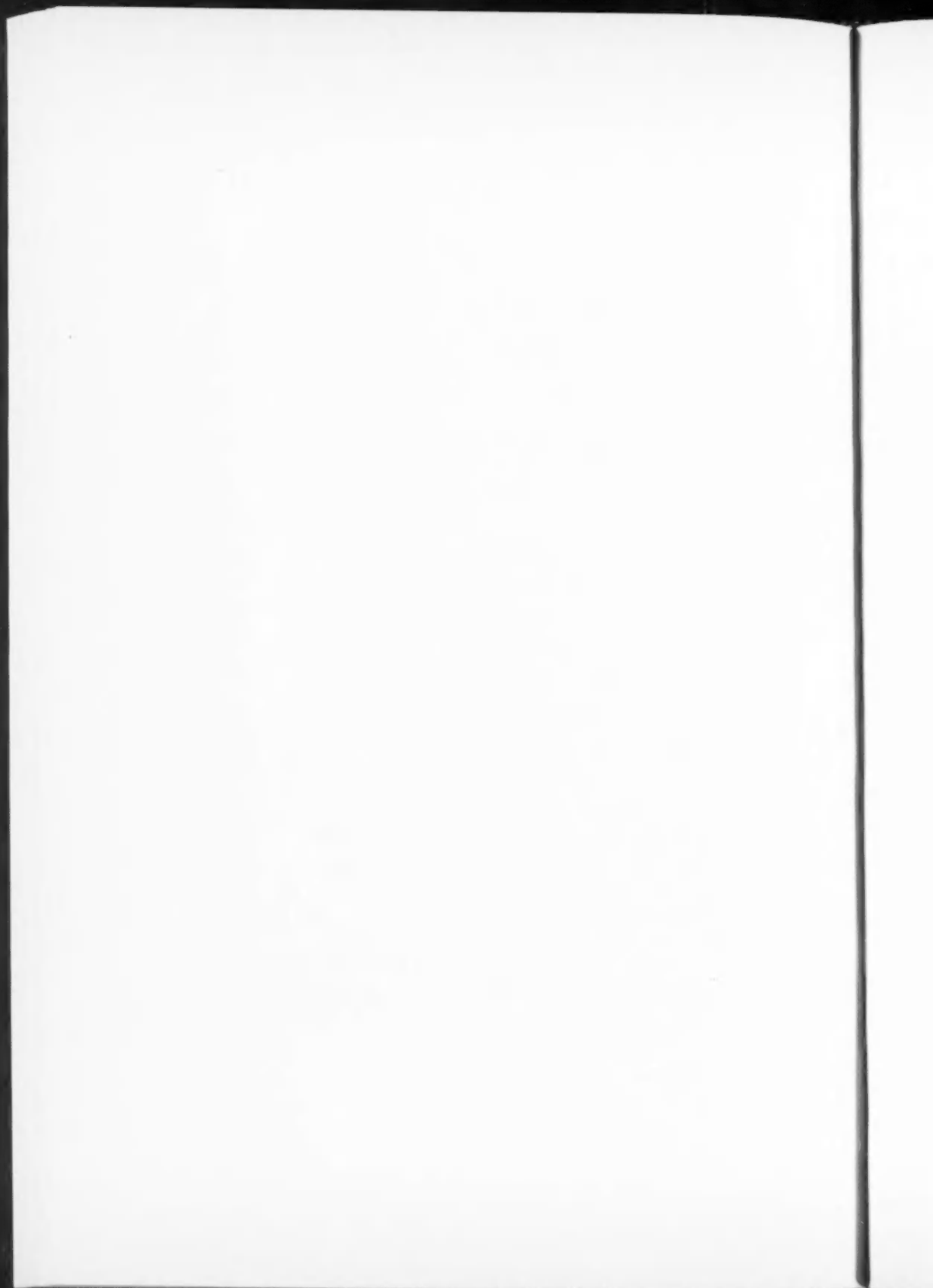
HIGHER EDUCATION FOR THE MILLIONS

by

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	PAGE
PROBLEMS IN MASS COLLEGE ATTENDANCE	319
Lack of Planning for Influx of New Students	319
Factors Promoting Rise in College Attendance	320
Need for Expansion of Facilities and Faculties	322
Junior Colleges; Sharing of Staffs and Equipment	323
FINANCING OF HIGHER EDUCATION IN AMERICA	325
Impact of Inflation on Colleges and Universities	325
Rise in Faculty Salaries and Other Cost Factors	326
Increase in Student Fees; Effect of G.I. Benefits	327
Search for New Income; Help From Corporations	328
Future of College Endowment and Alumni Funds	330
FEDERAL AID FOR COLLEGES AND STUDENTS	331
Influence of Federal Aid on Curriculum Content	332
Proposals to Offer General Federal Scholarships	333
Present Scholarships and Other Student Assistance	335

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HIGHER EDUCATION FOR THE MILLIONS

A GREAT BULGE in school enrollment, which began in the first grade shortly after the end of World War II, already has reached the secondary school and in a few years will begin to press on the country's limited facilities for higher education. The manner in which colleges and universities meet the imminent onrush of applicants may have profound effects on the nature, methods of financing, and even the quality of higher education in the United States.

Many of the nearly 1,900 institutions of higher education¹ are casting about for new sources of financial support to enable them to expand their facilities. At the same time, some of the private liberal arts colleges are setting up barriers against unduly expanded enrollments, lest numerical growth lead to a decline in the quality of education and to undesirable changes in the traditional character of the academic community.

LACK OF PLANNING FOR INFUX OF NEW STUDENTS

Growth among the young people of the United States of a demand for higher education poses numerous problems not heretofore encountered. One of the fundamental questions to be answered is whether an effort should be made to accommodate all who seek admission to college, or whether some new form of post-high school training should be offered instead to boys and girls who do not show real promise of benefiting from four years in college. Many educators are troubled over the possibility that broadening the base of college enrollment and revising curricula to meet the needs and abilities of larger groups of students may make higher education a kind of vocational adjunct to the secondary school. Others feel that higher education already is overdue for basic reforms to fit it to the changing needs of man and society.

¹The U.S. Office of Education lists 1,857 different institutions of higher education, though not all of them grant degrees. They include 141 universities, 723 liberal arts colleges, 193 teachers' colleges, 46 technical schools, 114 theological institutions, 125 professional schools, and 513 junior colleges.

Editorial Research Reports

If it is determined that public policy, or such a particular consideration as the country's shortage of specialists, requires that opportunities for higher education be extended to a larger proportion of American youth, then a major question is: Who will pay the bill? Tuition charges, even at the most expensive private colleges, do not cover all operating costs. Larger enrollments will make it necessary to enlarge faculties and expand investment in plant and equipment, thus adding to the costs not entirely covered by student fees. Yet the charges to students at current levels already place an education at many colleges and universities, without scholarship aid, beyond the reach of all except students from well-to-do families. Meanwhile, the requirements of tax-supported institutions of higher education are in competition for public funds with the no less urgent needs of the lower schools.

Few colleges and universities have come to grips with these questions and made the policy decisions that would serve as a basis for planning to meet the coming flood of applicants for admission. Estimating a possible increase of 60 per cent in college attendance within ten years, a dean in a large eastern university recently said:

We have no visible plans whereby the faculties are to be increased to carry such a load. We lack buildings and equipment. We do not know for certain what we should teach these millions or how we should teach them. We are engaged in endless arguments over the demands of specialization and the need for general education. . . . The financing of both public and private higher education presents problems for which no one has a sure solution.²

FACTORS PROMOTING RISE IN COLLEGE ATTENDANCE

Two developments indicate that future demands for admission to colleges and universities will reach successive peaks at an accelerating rate. One is the growing size of the college-age segment (18-21 years) of the population; the other is the increasing tendency of American youth to lengthen its span of years in school. The long-term trend was disturbed, beginning in the early 1940s, by (1) consequences of the low birth rates of the two previous decades and the vast demands of World War II for military manpower, both of which factors greatly reduced college enrollment; and (2) postwar educational benefits extended to veterans, which temporarily greatly expanded enrollment.

² Dean Ernest O. Melby, School of Education, New York University, Ninth National Conference of Association for Higher Education, Chicago, Mar. 4, 1954.

Higher Education for the Millions

The impact of these factors on attendance is now tapering off, and the basic trend of steady, upward growth is being reasserted. Since 1951, the number of 18-year-olds in the population has been on the increase and, from 1959 on, the total will reflect a dramatic increase in the birth rate that began in 1941. For several years, moreover, there has been a decline in the number of so-called G.I. students; they now constitute only 14 per cent of total college enrollment.

According to the U. S. Office of Education, the number of students in institutions of higher learning in the autumn of 1954 was 2.5 million—11.1 per cent more than in the previous year and 1.7 per cent above the last previous peak, recorded in the autumn of 1949 when the G.I. program was still in full swing. If the same proportion of high school graduates—roughly one-third—continues to go to college, total enrollment will rise to more than 3 million in the academic year 1961-62, will top 4 million in 1967-68, and reach nearly 4.3 million in 1970-71.

The above figures on prospective enrollment take no account of the long-term trend, which is for an increasing percentage of youngsters to remain in high school until they graduate³ and for an increasing proportion of high school graduates to matriculate at college. A recent study notes that if the rate of increase in the ratio of young people going to college—roughly one per cent a year—continues to 1962, the student body will total 4 million in that year. If the same rate of increase continues until 1970, enrollment by that time will total 6.7 million or roughly one-half of the nation's college-age population.⁴

Further pressure on educational facilities may arise from current efforts to stimulate a desire for advanced training among 150,000 young people of the upper two-fifths of intelligence who each year graduate from high school but who do not go to college. At the same time, educators are considering ways of holding some 100,000 gifted students who annually drop out of high school; if members of the latter group were induced to complete their secondary schooling, the pool of potential college students would be even larger.

³ Between 1945 and 1951, the proportion of children entering high school who completed the four-year course increased from 46.7 to 62.5 per cent; recent studies indicate another 7 per cent rise. U. S. Office of Education, *High-School-Retention by States* (Circular No. 398, 1954).

⁴ Ronald Thompson, *The Impending Tidal Wave of Students* (Presentation by the American Association of Collegiate Registrars and Admissions Officers, 1954).

Editorial Research Reports

The rising social and economic status of the Negro, buttressed by the anti-segregation decisions of the Supreme Court, tends to create an even more swiftly growing desire for college education in a group which heretofore has made relatively small demands on higher education facilities. Negroes today comprise scarcely four per cent of the college student body.

NEED FOR EXPANSION OF FACILITIES AND FACULTIES

The needs of higher education for additional physical facilities depend on many factors, such as estimates of future enrollment, the courses of study to be offered, the condition of existing plant, and the efficiency with which present facilities are utilized. The requirements of a residential college are quite different from those of an urban university. Facilities for medical education, now seriously inadequate to meet existing needs, are much more costly than those required for study of the humanities. Demands on a university for research, adult education, and other auxiliary services also affect requirements for plant and personnel.

Even without enrollment increases, many institutional facilities are badly in need of replacement. Plant and equipment made available by the federal government to provide for the veterans going to college after the war were in large part of temporary utility. Changing instruction techniques and advances in science and engineering have rendered many older facilities obsolete.

The President's Economic Report of January 1954 pointed to a "backlog of college and university construction" requiring an expenditure of approximately \$6 billion; it estimated that an average annual outlay of \$1¼ billion for ten years was needed to care for both replacement and additional facilities. A group of 630 private institutions, reporting to the Council for Financial Aid to Education⁵ early this year, estimated new building needs at \$2½ billion. A 1947-48 estimate that \$330 million was needed for construction of medical education facilities is considered still applicable.

Expansion of physical plant requires vast sums; enlarging the faculty involves not only a financial problem, but also the task of recruiting personnel from a limited supply. A new study of manpower needs by the Commission on

⁵ The Council was established in 1953 by a group of industrialists to stimulate business contributions to higher education.

Higher Education for the Millions

Human Resources and Advanced Training points to the difficulties of staffing institutions of higher education in a period of specialist shortages:

The colleges are caught in a situation in which enrollment and its accompanying need for an enlarged faculty will go up rapidly, and this will occur just when the age group from which new Ph.D.'s can be expected is at its smallest. All indications point to a shortage of well-qualified faculty members for the crowded campuses of 1960 and later.⁶

The study points out that the 35,000 persons expected to join the ranks of Ph.D.'s between 1955 and 1959 will fall 5,000 short of making up the number of faculty additions required during that period. It is highly unlikely, moreover, that all the new holders of the doctorate, who constitute the major source of supply for college teaching posts, will go into education.

A midwestern college dean told a recent education conference that "Unless the supply of competent college teachers is increased, the next 20 years may do damage to higher education in the United States which the following 100 will find it impossible to repair"; he said "the enormity of the difficulty has not yet been realized."⁷ To maintain the same faculty-student ratio as in 1952-53, when there were approximately 200,000 on the teaching staffs of degree-granting institutions, it was estimated that a total of 350,000 college teachers would be needed in 1965 and 414,000 in 1970.

JUNIOR COLLEGES; SHARING OF STAFFS AND EQUIPMENT

The shape of the future in higher education may be indicated by the phenomenal growth of the two-year community or junior college, the establishment of regional branches of state universities, and the development of various cooperative arrangements among educational institutions. The country's 500 two-year colleges, enrolling some 623,000 students, were founded largely in response to the rising demand for higher education; at the same time, their very existence in numerous communities has contributed to growth of the demand for post-high school training. As

⁶ Dael Wolfe, *America's Resources of Specialized Talent* (Report of the Commission on Human Resources and Advanced Training, 1954), p. 126. The commission was set up in 1949 under the sponsorship of professional associations and learned societies.

⁷ Dean Thomas H. Hamilton of the Basic College, Michigan State College, Tenth National Conference of Association for Higher Education, Chicago, Mar. 1, 1955.

Editorial Research Reports

a rule, junior colleges offer two types of school work: liberal arts courses, which may be carried on in the junior and senior years at another institution; and terminal courses of a vocational nature or sub-professional grade.

Approximately one-half of the junior colleges are public institutions supported by local taxes.⁸ They tend to be more closely allied to the secondary school system than is traditional for higher education; they are also more responsive to the needs and demands of the local community for particular types of training. Growth of the public junior college is looked upon by some specialists in education as an early manifestation of what may become eventually a standard 14-year, rather than the present 12-year, public school system. Others regard the junior college as an instrument for siphoning off some of the pressure upon the four-year college.

Shortages of facilities and staff and the increasing complexity of modern instructional requirements have led also to numerous cooperative arrangements in higher education. Three liberal arts colleges in California formed a cost-saving federation known as Associated Colleges of Claremont. In the Philadelphia area Bryn Mawr, Swarthmore, and Haverford exchange faculty members and sometimes make joint appointments. Vanderbilt University and George Peabody Teachers College in Nashville divide up certain specialties and interchange students. Numerous instances can be cited of joint operation of observatories, laboratories, libraries, even business management.

State governments that support a multiplicity of institutions are attempting coordination of their programs to prevent overlapping. The Board of Control for Southern Education, which grew out of a 1947 meeting of southern governors, helps to prevent overlapping of facilities in private and public institutions.

Single institutions are promoting such economies as central assignment of space to prevent "hoarding" of classrooms by various departments; extension of class schedules to early morning, noon, and late afternoon hours; consolidation or elimination of courses; and increased teaching loads. Yale University announced in March that unusually able students would be allowed to qualify for degrees in

⁸The remainder partake of the nature of finishing schools or specialized institutions.

Higher Education for the Millions

three instead of four years, either by obtaining college credits in high school or by augmenting freshman schedules and skipping the sophomore year.

Financing of Higher Education in America

ACQUISITION of funds to expand faculty and plant would scarcely suffice to meet the whole cost of educating additional numbers of students. Tuition fees constitute only one-fourth of the total income received by institutions of higher education for all purposes. In 1950 they accounted for from 23 per cent (public universities) to 72 per cent (private liberal arts colleges) of the operating income devoted to purely educational functions.⁹ Tuition in medical schools, which rose from an average of \$445 in 1940-41 to an average of \$772 in 1953-54, meets only one-fifth of the cost of a medical education.

Most institutions, particularly those which are tax-supported, are obliged to tailor their expenditures to the amounts of assured income. Thus receipts and outlay for current operations usually have kept pace. It is now becoming apparent, however, that efforts to hold the line of educational quality are making inroads on solvency. One-half of the nearly 800 colleges and universities surveyed by the Council for Financial Aid to Education were reported in April 1955 to be operating at a loss; 200 were in serious difficulties. Those in the red were preponderantly private establishments. Other studies indicate an annual \$10 million deficit among the nation's 80 medical schools, despite a 7 per cent decline in faculty time per student over the past decade.

IMPACT OF INFLATION ON COLLEGES AND UNIVERSITIES

An official of a southern university recently cited the following factors as accounting for hard times in higher education: Decreased purchasing power of endowment income; failure to increase student fees proportionately with the declining value of the dollar; disappearance of large personal fortunes; demands for faculty salary increases; and "expanding state requirements which have placed pub-

⁹ John D. Millett, *Financing Higher Education in the United States* (1952), p. 292.

Editorial Research Reports

lic institutions in keen competition for the taxpayer's dollar."¹⁰

Between 1940 and 1950 the cost of goods and services purchased by colleges and universities increased 76 per cent, while dollar income per student rose only 66 per cent. Despite a 200 per cent increase in the total amount of money received in support of instructional activities, income per student in the 10-year period rose only from \$345 to \$572. In terms of purchasing power, this was not an increase but a decline of \$20.

The impact of war and postwar inflation varied with different types of institutions. The rise in income of state and municipal universities lagged only slightly behind the upward trend in costs; public liberal arts colleges and professional schools actually improved their financial position; and the public junior colleges enjoyed a phenomenal rise in per student income of nearly 160 per cent, or 50 per cent in terms of constant purchasing power. However, among private institutions, all types except the junior college suffered losses in real income. The income per student of private liberal arts colleges fell off 23 per cent in purchasing power, of private universities 20 per cent, and of private professional schools 16 per cent.¹¹

RISE IN FACULTY SALARIES AND OTHER COST FACTORS

Teaching staffs in institutions of higher education bore the brunt of the loss of real income. Although faculty salaries went up on the average about 50 per cent in the war decade, the increase was not commensurate with the rise in the cost of living. Salary improvement was even less adequate in the private colleges and universities than in state and municipal institutions. It has been estimated that if faculty salaries had kept pace with the inflationary spiral, total expenditures of private institutions would have been one-fourth larger in 1950.¹²

A recent study of faculty compensation in 330 institutions of higher education throughout the country showed that the median salary of full professors ranged from \$6,930 in large state universities down to \$5,590 in private universi-

¹⁰ George F. Baughman, Vice President for Business Affairs, University of Florida, National Conference of Association for Higher Education, Chicago, Feb. 28, 1955.

¹¹ John D. Millett, *op. cit.*, pp. 290-291.

¹² Richard H. Osthelmer, *Student Charges and Financing Higher Education* (1953), pp. 51-52.

Higher Education for the Millions

ties and \$4,290 in small private liberal arts colleges. The median salary of instructors was \$3,800 in large state universities, \$3,650 in private universities, and \$3,210 in small private colleges.¹³ Such pay scales, though higher than a few years ago, are still too low for effective recruitment.

The effect of salary increases on institutional costs depends greatly on the proportion of full professors on the faculty and on the kind of courses offered. The prevailing off-campus income potential in various professions has considerable bearing on faculty salaries in those fields. The highest paid faculty members are doctors on medical school staffs, professors of nuclear physics, and professors of engineering, while teachers in the humanities usually receive lower salaries.

Contract research projects are taking faculty members from classroom duty and placing a cost burden on colleges and universities that is not always fully met by contract fees or grants. A growing proportion of graduate students and mounting educational requirements in the professions likewise tend to raise costs, because training at advanced levels requires smaller classes, greater faculty competence, and specialized facilities. Developments in the physical and biological sciences, in particular, have made it necessary to acquire new and costly equipment. Medical schools may drain off as much as one-third of a university's total spending budget while enrolling only 10 per cent of the student body.

INCREASE IN STUDENT FEES; EFFECT OF G.I. BENEFITS

A universal increase in tuition charges partly offset the postwar rise in costs of educational institutions. Many of them took advantage of the government's subsidy of veterans' education to raise fees at a time when there was no danger that higher charges would interfere with maximum attendance.

The G.I. bill of 1944, which underwrote the college education of 2½ million World War II veterans, was of particular benefit to the public colleges and universities, because it permitted them to charge out-of-state student rates to all veterans without regard to their places of residence.

¹³ W. Robert Bokelman, *1954-1955 Annual Survey of Business Management Statistics* (study sponsored by Central Association of College and University Business Officers). The highest median salary for instructors (\$4,125) was found in municipal universities and colleges.

Editorial Research Reports

Thus, while tuition charges advanced 50 per cent for in-state and 80 per cent for out-of-state students in public institutions between 1940 and 1950, per student income from fees increased much more—135 per cent.

Tuition charges in private institutions rose 54 per cent in the ten-year period, but per student fee income was up 63 per cent, partly because a larger proportion of students attended full time. Further advances in tuition rates since 1950 have brought the present average to \$580 a year at private and \$240 a year at public institutions.

As the number of student veterans declined after World War II,¹⁴ per student fee income of the tax-supported institutions also fell. The new influx of nearly half a million Korean veterans did not bring the same financial benefits to the colleges as those received from the World War II group. When Congress approved the second program in 1952, it changed the method of payment. Whereas formerly the government had reimbursed the institution directly, under the new plan it gave the veteran a flat sum for educational expenses. The result was to encourage veterans to select tax-supported colleges because of their lower fees, and to stop charging of veterans at the out-of-state rate.

Limitations on the size of the student body and the skyrocketing of fees in private colleges and universities—many of which now charge from \$800 to \$1,000 a year for tuition alone—have had the effect of propelling an ever-increasing proportion of students to the tax-supported institutions and consequently of greatly increasing their need for public funds. Many educators regard this development as unfortunate, not only because they fear state legislatures may resist requests for larger appropriations, but also because it weakens the traditional diversity in types of education available to American youth and upsets the earlier balance in enrollment between private and public institutions.¹⁵

SEARCH FOR NEW INCOME; HELP FROM CORPORATIONS

On the whole, state and local governments to date have met the requests of public educational institutions for ad-

¹⁴ In the spring of 1955 around 65,000 World War II and 325,000 Korean veterans were attending college under G.I. programs; at the peak in December 1947, G.I. enrollment totaled 1,158,000.

¹⁵ An Office of Education report on autumn 1954 enrollment showed an increase over the previous year of 18 per cent for public institutions and of only 5.5 per cent for private institutions. The tax-supported group now enrolls one-fourth more students than the private group; until recently the ratio had held close to 50-50.

Higher Education for the Millions

ditional funds to cover rising costs, but resistance to further increases in appropriations is widely anticipated.¹⁶ The independent colleges and universities, meanwhile, must look almost entirely to private benefactions for new income.

Corporation giving to higher education is a relatively new phenomenon. The Council for Financial Aid to Education estimates that contributions from that source totaled between \$70 million and \$75 million in 1953; the *New York Times* recently estimated that the 1955 sum would be \$100 million. In the light of a total budget of \$2.5 billion for higher education, such amounts are not large, but business interest in educational philanthropy appears to be growing. Council Director Wilson Compton has suggested that by 1970 corporation donations may total \$500 million.

Federal tax law permits a 5 per cent of net income write-off for corporation donations. Among a group of 367 companies surveyed by the Council, charitable contributions of all kinds represented from 0.9 to 2.9 per cent of net taxable income in 1953; one-fourth of the gifts were for educational purposes. Many educators believe that corporation donations never should be allowed to make up more than 15 or 20 per cent of the income of an educational institution.

To some degree, industry's growing interest in higher education appears to rise from the concern of business leaders lest government-controlled institutions dominate the training of future administrators and technicians. One observer notes that "Industry leaders identify the fate of the [private] liberal arts college with the fate of the private enterprise system" and fear "assumption by government of sole responsibility for educating American youth."¹⁷ Appeals to businessmen frequently stress that it is better, and possibly less costly, to contribute voluntarily to independent schools than to pay increased taxes in support of government institutions.

According to F. Emerson Andrews of the Russell Sage Foundation, the country's 5,000 foundations cannot be expected to offer much relief on college financial problems, because they control only 3 to 4 per cent of the philanthropic dollar and their donations usually are restricted as to

¹⁶ Between 1942 and 1950 state and local government contributions to higher education rose from \$190 million to \$545 million.

¹⁷ A. H. Raskin, "The Corporation and the Campus," *New York Times Magazine*, Apr. 17, 1955, p. 12. See "Corporation Donations," *E.R.R.*, Vol. II 1953, pp. 591-608.

Editorial Research Reports

purpose. Recent corporation and foundation giving, however, displays a tendency to move away from placing limitations on grants and reflects increasing consideration for the general operational costs of education. Various recent scholarship grants have refrained from specifying that the student follow a particular course of study, and some have provided supplementary funds to the institution to meet the hidden costs of educating the scholarship winner.

The Ford Foundation announced in March that it would give \$50 million to increase faculty salaries at institutions which would apply matching sums from other sources to the same purpose. The Westinghouse Educational Foundation made known the same month that it was sponsoring a five-year program to distribute \$5 million to educational institutions—one-half for general operation and plant expansion and one-half for scholarships and fellowships. A new General Motors \$2 million scholarship plan, announced in January, offers \$500 to \$800 a year to recipient institutions for each scholarship student covered by the plan and additional sums to underwrite tuition charges.

The Columbia Broadcasting System last December contributed to the colleges attended by 16 top C.B.S. officials, in recognition of what the institutions had done at less than cost to prepare the men for their future careers, sums amounting to \$2,000 for each official. Bethlehem Steel paid out more than \$300,000 in 1954 to 31 private colleges which had educated 100 newcomers to the company. General Electric announced last November that it would match gifts, up to \$1,000 each, made by the company's 23,000 college-trained employees to their alma maters.

FUTURE OF COLLEGE ENDOWMENT AND ALUMNI FUNDS

Endowment funds are widely regarded as a declining factor in educational financing, but it has been noted that gifts to those income-producing funds are still flowing in; the endowment funds of 1,300 institutions grew by nearly \$236 million in the two-year period ended June 30, 1950.¹⁸ F. Emerson Andrews recently commented that "Some colleges have prematurely buried the large donor." He observed that the number of incomes over \$50,000 had more than doubled since 1929, and that the right to deduct educational contributions for tax purposes, in an amount re-

¹⁸ John D. Millett, *op. cit.*, p. 374.

Higher Education for the Millions

cently raised from 20 to 30 per cent of adjusted gross income, offered more inducement to giving than formerly.

Many institutions, however, count more on enlarging the number of small annual contributions, all available for immediate use, than on obtaining large income-producing endowments from wealthy persons. The American Alumni Council reports that 302 alumni groups collected in 1953 a total of \$40 million. The Harvard Fund noted in its appeal for 1955 that the number of its donors had increased in 28 years from 3,300 to 17,000, and that annual contributions had risen from \$125,000 to \$704,000.

Cooperative fund-raising drives are being organized in many areas in the expectation that they will produce more money than separate appeals by individual institutions. Most successful of these ventures is the United Negro College Fund, which this year is seeking \$1,750,000 to absorb the 10 per cent operating deficit of its 31 member colleges. The National Fund for Medical Education, founded in 1949, has raised \$7 million for medical schools and hopes eventually to collect \$10 million annually. Appeals for contributions to all colleges in a given state or region are now carried on in approximately one-half of the states.

Federal Aid for Colleges and Students

THE INTEREST of the federal government in higher education arises primarily from the nation's need for a larger number of trained specialists in certain fields; educational establishments, moreover, are peculiarly fitted to perform certain functions required by various government agencies. Thus federal assistance to higher education in recent years has been chiefly in the form of compensation for specific services rendered. A study of the federal relationship to higher education shows that existing federal programs fall into three main categories:

(1) Assistance to special groups, such as educational aid to veterans and Atomic Energy Commission, Public Health Service, and National Science Foundation scholarships and fellowships to science students; aid to students in reserve officer training; and in-service training of federal employees.

(2) Grants and contracts for specified research, administered

Editorial Research Reports

chiefly by the Atomic Energy Commission, the Public Health Service, and the Departments of Agriculture and Defense.

(3) Direct grants to support land-grant colleges and extension programs in agriculture and home economics; loans for construction of campus residential quarters; and Public Health Service grants to prepare teachers in mental health, cancer, and other medical specialties.¹⁹

Preservation or enlargement of educational facilities is the primary purpose of federal aid in relatively few of the foregoing programs. G.I. educational aid proved a life-saver for many institutions, but the government's objective was to compensate veterans for their loss of time in military service, and help them prepare for vocations, rather than to rescue the colleges.

INFLUENCE OF FEDERAL AID ON CURRICULUM CONTENT

The G.I. program differed in its impact on higher education from most forms of federal assistance in that the individual beneficiaries were free to choose their fields of study. Other federal scholarships and research grants have exerted a significant influence on curricula, because usually restricted to certain highly specialized fields of study. To some degree, this kind of indirect influence also accompanies much of industry's spending on higher education.

The major effect of restricted aid has been to foster the physical, biological, and medical sciences and to stress applied rather than basic research. Many educators feel that a by-product of the flow of new money to such areas is neglect of the humanities. Some say it tends to produce specialists who are deficient in general education. It has been stated: "Where the need is for wisdom, the colleges tend to teach skills. When citizenship demands broad knowledge and critical thinking, the colleges frequently offer narrow professional and vocational training. . . . Federal programs encouraged the universities and colleges to do these things."²⁰

Although many persons decry over-specialization because of its failure to turn out well-rounded individuals, an attempt has been made to show that over-specialization may be detrimental to its own objective of supplying a sufficient number of specialists for future needs. The study of manpower needs for the Commission on Human Resources and

¹⁹ Richard G. Axt, *The Federal Government and Financing Higher Education* (1952), p. 10.

²⁰*Ibid.*, p. 273.

Higher Education for the Millions

Advanced Training indicated that a broader type of education would permit more flexibility in choice of vocation, and that the major objective of a specialist-producing program should be simply to draw more intelligent young people to all kinds of higher education in order to enlarge the pool of gifted, trained individuals from which specialists may be drawn.

Knowledge increases. New specialties arise. Demands change. Educating the nation's highest intellectual potential, but letting each student specialize in the field of his own choice, is a means of making the best use of America's intellectual resources, and of assuring intellectual flexibility to meet whatever conditions the future brings.²¹

Student freedom of choice in the past is said to have "created a mechanism for adjusting supply to changing demands." It is suggested that "Serious imbalances among specialized fields could develop if a powerful agency, such as the federal government, infringed that historically tested custom by establishing a large number of undergraduate scholarships which were available only to students who chose as college freshmen to major in certain designated areas."

PROPOSALS TO OFFER GENERAL FEDERAL SCHOLARSHIPS

The Commission on Higher Education, appointed by President Truman in 1947, made three proposals looking to "equalization of educational opportunity." The objective was to assure at least two years of higher education for the more able half of young persons of college age, and full college and professional training for the top one-third. The commission's proposals, which still stir lively debate in academic circles, called for (1) federal scholarships, to be administered by the states, for at least 20 per cent of all non-veteran undergraduates; (2) federal grants to the states to help meet current expenses of tax-supported colleges and universities; and (3) grants to the states to help finance expansion of the physical plant and equipment of the public institutions. The grants were intended to permit reduction or elimination of tuition fees in state and municipal colleges and universities, and the scholarships to help defray student expenses in both public and private institutions.

The Truman administration repeatedly sponsored bills to

²¹ Dael Wolfe, *op. cit.*, p. 266.

Editorial Research Reports

set up federal scholarships for qualified students who had no means of paying their own way. A like measure was introduced in the present Congress on Mar. 31 by Rep. Elliott (D-Ala.). It proposed annual federal appropriations, beginning at \$32 million and rising to \$128 million in the fourth year, to finance stipends of up to \$800 a year for students selected by special state commissions on the basis of ability and financial need.²² At a manpower conference at the University of Toledo the last week of April, Dean Eldridge McSwain of the School of Education at Northwestern University recommended giving \$500-a-year scholarships to 200,000 high school graduates annually—the money to come chiefly from state appropriations but also to some extent from federal contributions.

The Office of Education and college professional groups have conferred within the past year on federal scholarships, but no proposal of the magnitude envisioned in the Elliott bill has been entertained by the administration. President Eisenhower suggested, at a news conference last Nov. 10, that it might become necessary to offer more scholarships in scientific fields to overcome the threat of a Soviet lead in that sector.²³ Rep. Rogers (R-Mass.) has proposed that the latter objective be attained by establishing a National Academy of Science on the order of the military academies to train qualified high school graduates, who would be required to devote their services to the government for a specified time. Such proposals follow the prevailing pattern of subsidizing only particular specialties currently in short supply.

The effectiveness of any large, general scholarship plan in bringing more gifted young people to college would depend chiefly on whether financial incapacity was the major obstacle to their enrollment. The Office of Education is seeking an answer to this question in a study of the relationship between family income and college attendance. It is recognized that many factors in addition to financial considerations may keep boys and girls from going to college; geographical remoteness from an academic institution, the social and occupational status of parents, prevailing community attitudes, even ethnic background appear to be significant in that connection.

²² In addition, the Elliott bill proposed appropriation of \$10 million for federal insurance of low-interest student loans in amounts up to \$600 a year, or an aggregate of \$2,400, per student.

²³ See "Shortage of Scientists," *E.R.R.*, Vol. II 1954, pp. 557-559.

Higher Education for the Millions

An Educational Testing Service study in 1951 indicated that four out of five of the veterans attending college under the G.I. bill would have done so without federal assistance. Questioning of every high school senior in Minnesota in 1950 disclosed that one-half of those in the upper 10 per cent of intelligence grades who did not plan to go to college were not deterred by financial considerations. The recent proliferation of community colleges has tended to lower money barriers, for the cost of attending college is much less when students can live at home.

The Commission on Human Resources and Advanced Training pointed out last year that scholarships are not needed at the top of the economic scale, and that for those at the bottom they are inadequate at present benefit scales. The commission found, however, that scholarships sometimes provided a higher education for members of the in-between group who might not otherwise have gone to college.

PRESENT SCHOLARSHIPS AND OTHER STUDENT ASSISTANCE

Whether or not federal scholarships should be offered depends in part on the availability of other sources of aid for needy students. From 10 to 15 per cent of college students receive scholarships, but not all of these students qualify as needy, nor are the stipends usually large enough to defray all expenses. One reason that most private institutions award scholarships is to attract students from different parts of the country and from different income groups, in order to avoid geographic or economic stratification of their student bodies.

Although state governments, subsidizing the whole structure of a higher education, customarily do not offer many scholarships, the number which do so is growing. New York's legislature this year doubled (to 3,388) the number of \$350-a-year, four-year scholarships available to state residents; it also created 300 new nursing scholarships with the same subsidy.²⁴

Scholarships impose a serious financial burden on many institutions. Student subsidies from other sources might

²⁴ More than one-half of the states have authority to grant scholarships, but some restrict awards to future public school teachers or to children of disabled or deceased veterans. Only New York has a large-scale general scholarship program; four or five other states have less extensive programs. The New York scholarships go to high school seniors, without reference to need, who score highest on the annual regents' examinations.

Editorial Research Reports

permit release of unrestricted scholarship funds to help pay general educational expenses. A recent survey of 25 colleges by the treasurer of Lafayette College indicated that total student aid increased from \$1.7 million in 1948-49 to \$4 million in 1952-53, but that only one-third of the amount in the latter year was supplied by income from endowment funds. The American Council on Education has reported that in 1951-52 colleges and universities paid out \$39 million in scholarships, fellowships, and prizes, and that 90 per cent of the money was to cover tuition charges.

Loan funds as a form of student aid appear to be useful chiefly to tide over students whose resources fall only a little short of the amounts needed to meet expenses; most students seem reluctant to borrow sizable sums. Of \$25 million available in college and university loan funds in 1946-47, only \$4 million was actually borrowed. Some college officials think the money in loan funds would do more good if transferred to scholarship and fellowship funds.

Tax concessions offer another approach to the problem of financing a college education. Several bills before Congress would carry out a proposal of the American Council on Education to allow anyone sending a boy or girl to college to count 30 per cent of the tuition fees as a credit against federal income tax.²⁵ The Council has estimated that such a credit would cost the federal government about \$120 million a year in lost revenue. Although tax concessions would not open the doors of higher education to all young people, the Council felt the plan would encourage "thousands of families now doubtful of their ability to send their children to college" and would save thousands of students already in college from dropping out.

Any form of general federal aid raises the specter of federal control. Most educators agree that previous aid programs have not been accompanied by direct intervention in higher education, but there is nevertheless widespread aversion to dependence on government benefactions. The fact that many private colleges are church-connected presents another obstacle to direct federal aid. On the whole, the academic world prefers that sources of income continue to be dispersed over many areas without overwhelming dependence on any one source.

²⁵ The concession, limited to \$450 on account of any one student, would be a credit against the total amount of tax otherwise due, not a deduction from gross income. Under the tax credit plan the saving in a given case would be the same for all taxpayers; if the concession were granted as a deduction, savings would be larger for taxpayers in the upper income brackets.

